



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/524,954

01/30/2006

David Opie

L2:00535

1071

71897 7590 08/19/2010
KAUTH, POMEROY, PECK & BAILEY, LLP
2875 MICHELLE DRIVE
SUITE 110
IRVINE, CA 92606

EXAMINER

SCHILLINGER, ANN M

ART UNIT

PAPER NUMBER

3774

NOTIFICATION DATE

DELIVERY MODE

08/19/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO@KPPB.COM
docketing@cpaglobal.com

Office Action Summary	Application No. 10/524,954	Applicant(s) OPIE ET AL.	
	Examiner ANN SCHILLINGER	Art Unit 3774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 23-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims contain subject matter describing the implant body as having a plurality of precision engineered surface features that are substantially uniform. There is insufficient support for these limitations in the specification and the drawings. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 6, 8-13, 16, 17, and 19-22 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Horton et al. (US Pub. No. 2002/0162605) in view of Rogers et al. (US Pat. No. 6,159,010). Horton et al. discloses dental implants made of a bulk-solidifying amorphous alloy that is Be free and discloses an example of such an alloy having a composition within the

Art Unit: 3774

limits as recited in the instant claims. This alloy has the claimed elastic strain limit, fracture toughness, and hardness value within the claimed ranges (paragraphs 0031, 0032, 0044, and Table 1). The implant has a surface texture selected from a mixture of concave and convex surfaces (Figs. 1-5). The alloy has substantially the molecular structure described in claim 8, which is based on ferrous metals and is a Zr/Ti- based alloy (paragraphs 0032, 0035). The implant can act as a load-bearing and/or articulating member (paragraph 0031). Horton et al. does not specify the cooled liquid region and the claimed hardness and elastic strain limit. However, the examiner 's position is that these are material properties of a given amorphous alloy composition, and that Horton et al. in paragraph 0032 indicates that a large range of specific compositions may be used in the Horton et al. procedure. One skilled in the art would vary the composition used by Horton et al. within the constraints set forth in that reference, and some of the compositions are likely to possess the hardness and transition temperatures as presently claimed.

In addition, Horton et al. does not teach the implant body having precision engineered surface features that are substantially uniform. However, Rogers et al. teaches a dental implant that includes substantially uniform surface features that are constructed through precision engineering techniques in col. 1, lines 29-50 in order to maintain hygienic conditions for the device when it is implanted. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Horton et al. so that the implant body has precision engineered surface features that are substantially uniform in order to maintain hygienic conditions for the device when it is implanted.

Art Unit: 3774

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horton et al. in view of Rogers et al. further in view of Scheicher (US Pat. No. 4,278,630). Horton et al., as modified by Rogers et al., teaches the invention substantially as claimed, however, they do not teach the implant body having a plurality of pores. Scheicher teaches a dental implant having pores in col. 2, lines 40-63 for the purpose of providing an adhering layer for the ingrowth of tissue. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Horton et al. and Rogers et al. with pores in order to provide an adhering layer for the ingrowth of tissue.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horton et al. in view of Rogers et al. further in view of Lin et al. (US Pat. No. 5,797,443). Horton et al., as modified by Rogers et al., teaches the invention substantially as claimed, however, they do not teach the bulk-solidifying amorphous alloy being free of Al and Ni. Lin et al. teaches articles of a bulk-solidifying amorphous alloy that is free of Al and Ni in pores in col. 4, lines 39-67 for the purpose of providing the final article with the desired physical characteristics. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Horton et al. and Rogers et al. to be free of Al and Ni in order to construct the final implant with the desired physical characteristics.

Claims 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horton et al. in view of Rogers et al., further in view of Oshida (US Pat. No.6,066,176). Horton et al., as modified by Rogers et al., teaches the invention substantially as claimed, however, they do not teach the implant body being coated with a biocompatible resin cement. Oshida teaches a dental implant being coated with a biocompatible resin cement in the abstract and col. 6, lines 41-62 for

Art Unit: 3774

the purpose of more securely holding the prosthesis in its desired position. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Horton et al. and Rogers et al. with a layer of biocompatible resin cement in order to more securely hold the prosthesis in its desired position.

Response to Arguments

In view of the amendments submitted on 6/9/2010, the 35 U.S.C. 112 rejection of claim 7 is withdrawn.

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 3774

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANN SCHILLINGER whose telephone number is (571)272-6652. The examiner can normally be reached on Mon. thru Fri. 9 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Isabella can be reached on (571) 272-4749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. S./
Examiner, Art Unit 3774

/DAVID ISABELLA/
Supervisory Patent Examiner, Art Unit 3774